IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

KS-115PCT

Applicant(s)	:	Markus Feurer
Serial No.	:	NOT YET KNOWN (PCT/EP00/03011)
Int. Filed	:	April 5, 2000
For	:	METHOD AND DEVICE FOR SHAPING THERMOPLASTIC HOLLOW BOARDS

Assistant Commissioner for Patents
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

S I R:

The attention of the Examiner and of the U.S. Patent and Trademark Office is hereby directed to the references listed on attached form PTO-1449. Copies of the references are forwarded herewith.

Several of the references were cited in the International search report, a copy of which is enclosed.

Also submitted is a copy of PCT/EP00/03012, the national phase of which is being entered simultaneously with the above-identified application.

French reference 2 607 434 describes a method of deforming thermoplastic double-web plates. Two parallel webs extend between two cover layers, wherein the webs define hollow spaces ending at oppositely located ends of the plates. For deforming the double-end plate, it is initially heated. Subsequently, an upper die and a lower die are placed against oppositely located sides of the double-web plate. At the same time, a negative pressure is effective between the two dies and the respective oppositely located cover layers of the double-web plate. As a result, the heated and softened cover layers are prevented from collapsing. The upper and lower dies are maintained at a defined relative distance by means of two stops. Consequently, a deformation of the webs extending between the cover layers is prevented. The reference does not disclose sealing of cavities at the edges thereof in the interior of hollow boards to be deformed.

French reference 2 208 767 is also directed to a method of deforming double-web plates of boards of thermoplastic material with cavities in the interior thereof defined by webs, wherein the cavities end in oppositely located end faces of the boards. For deforming the double-web plate, the plate is initially heated in such a way that both of its cover layers are softened to a greater extent than the webs extending between the cover layers.

Subsequently, the actual deformation is carried out by means of a conventional deep-drawing method. Since the webs of the board or plate are plasticized only relatively little, they maintain their shape during the deep-drawing process. A sealing of cavities in the interior of the hollow boards to be deformed also does not take place.

German reference 20 53 318 discloses a method of bending thermoplastic section rods with continuous inner cavities which end at the end faces of the rods. The method is carried out by initially heating the rod at the bending point and subsequently deforming the rod by means of a template and a counter-template. Any undesirable deformations of the cavity walls which occur during bending maybe eliminated after the deformation process by applying a negative pressure to the respective cavity wall. In addition or alternatively to the negative pressure applied to the cavity wall, support air can be introduced into the interior of the cavity. The reference also discloses that as a precautionary measure against undesirable deformations of the deformed rods supporting cores can be placed in the cavities prior to heating the rods.

German reference 29 12 772 describes a method for deforming double-web plates in the interior of which there are ducts which end at the ends of the plates. Prior to the deformation of the double-web plate, the border thereof is sealed off from the outside. The air enclosed in the ducts then prevents the double-web plate from collapsing during the subsequent deformation process.

European reference 0 646 619 discloses a method of producing shaped components of foamed polymer particles, wherein the particles are softened under pressure by means of water vapor and are then welded to the respective shaped component.

European reference 0 778 310 describes a method of manufacturing polyolefine foam particles in which the foamed particles are once again foamed once or several times, i.e., they are deformed once again.

European reference 0 558 989 discloses a method of producing structured surfaces of foam components, wherein the surface portion of the component is treated with heat and pressure in such a way that the structures of the particles forming the component are dissolved in the desired area.

Respectfully submitted,

FRIEDRICH KUEFFNER

Dated: October 25, 2001

Friedrich Kueffner Reg. No. 29,482
342 Madison Avenue
Suite 1921
New York, N.Y. 10173
(212) 986-3114

Attorney for Applicant

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231, on October 25, 2001.

By: _____
Friedrich Kueffner

Date: October 25, 2001

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LIST OF PRIOR ART CITED BY APPLICANT	Applicant: Markus Feurer	
	International Filing Date: April 5, 2000	Group:

U.S. PATENT DOCUMENTS

Exam. Init.		Document Number	Date	NAME	Class	Subclass	Filing Date if appropriate
	AA	5 2 3 8 7 2 5	8/93	EFFING ET AL			
	AB	4 1 7 2 7 4 9	10/79	LIGGETT			
	AC						
	AD						
	AE						

FOREIGN PATENT DOCUMENTS

		Document Number	Date	COUNTRY	Class	Subclass	TRANSLATION Yes	TRANSLATION No
	AF	0 6 4 9 7 3 6	4/95	EUROPEAN				X
	AG	0 1 3 5 7 0 8	4/85	EUROPEAN				X
	AH	196 04 613 A1	8/97	GERMANY				X
	AI	0 5 5 8 9 8 9	9/93	EUROPEAN				X
	AJ	0 7 7 8 3 1 0	6/97	EUROPEAN				X
	AL	0 6 4 6 6 1 9	4/95	EUROPEAN				X
	AM	2 9 1 2 7 7 2	7/80	GERMANY				X
	AN	2 0 5 3 3 1 8	5/72	GERMANY				X
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	AP	2 6 0 7 4 3 4	6/88	FRANCE				X

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